A. REMARKS

No amendments to the present application have been made in this reply. Hence, Claims 1-90 are pending in this application. Claims 71-76 were previously withdrawn from consideration in view of the election for examination of Claims 1-70 and 77-90. All issues raised in the Office Action mailed April 14, 2005 are addressed hereinafter.

REJECTION OF CLAIMS 1-70 AND 77-90 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

Claims 1-70 and 77-90 were rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement and for failing to comply with the enablement requirement. The basis for the rejection is that the claim amendments made with the prior Request for Continued Examination (RCE) are not supported by the specification of the present application.

The previous amendments to independent Claims 1, 13, 25, 37, 77, 78, 79 and 90 generally included two clarifications. In the first clarification, the "in response to" step was amended to recite the entire detecting step, instead of just referring to the detecting step by "detecting." More specifically, the "in response to detecting that the second more recent version of data is available" was changed to "in response to detecting, *independent of any request for the data*, that the second more recent version of data is available" (new text in italics) to more completely refer to the detecting performed in the detecting step. The text added was implicit in the claim prior to amendment since the claim referred to the detecting step, but the claim was nevertheless amended to improve the readability and clarity of the claims. As for support in the specification, the exact claim language as amended, is provided in the specification in the Summary of the Invention section on Page 7, lines 4-6.

In the second clarification, the claim limitation "retrieving and storing in the cache the second more recent version of the data" was amended to include "requesting the second more recent version of the data be supplied to the cache." Although it is implicit that retrieving the second more recent version of the data includes requesting the second more recent version of data, this amendment was made to improve the readability and clarity of the claims. As for support in the specification, this claim language is supported by the description contained in Section 6 "Cache Pre-Fetch" starting on Page 21 of the specification.

The Office Action asserts "when reading pages 13-14 of the specification, the differencing engine always inquires about newer versions based upon the cached versions that were previously requested." Applicant respectfully submits that the description on pages 13-14 of the specification provides examples of how the differencing engine might detect that new content is available and there is nothing in the specification that describes that the differencing engine "always inquires about newer versions based upon the cached versions that were previously requested." To the contrary, the discussion of the pre-fetch technique in Section 6 describes how content may be pre-fetched irrespective of whether the content has been previously requested. Section 6 also clearly describes how the approach may be applied to new content that not only has never been previously requested, but has never even been stored in a cache.

As for the other independent Claims 49, 59, 69 and 70, these claims were amended in a manner similar to independent Claims 1, 13, 25, 37, 77, 78, 79 and 90, albeit with slightly different language. It is respectfully submitted that the amendments to Claims 49, 59, 69 and 70 are also fully supported by the specification in the sections identified above. It should be pointed out that other portions of the specification may also provide support for the claim amendments

made with the filing of the RCE, but it was viewed that this was not necessary in view of the clear support already identified.

In view of the foregoing, it is respectfully submitted that the amendments made with the filing of the RCE are fully supported by the present application. Accordingly, reconsideration and withdrawal of the rejection of Claims 1-70 and 77-90 under 35 U.S.C. § 112, first paragraph, is respectfully requested.

REJECTION OF CLAIMS 1-70 AND 77-90 UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 1-70 and 77-90 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The stated basis for the rejection is that "[i]t is unclear how the claimed limitation of 'in response to detecting that the second more recent version of the data is available, and requesting the second more recent version of the data be supplied to the cache' is performed independent of any request for that data."

It is certainly true that conventional caching mechanisms, such as those described in the *Keesey* reference, rely upon prior requests for data to determine whether a more recent version of data is available. Unlike prior conventional approaches however, the approaches recited in Claims 1-70 and 77-90 detect that an updated version of data is available independent of any request for the data. This may be done using numerous approaches and the inventions recited in Claims 1-70 and 77-90 are not limited to any particular approaches. As one example, a notification may be received from a source of data, such as an origin server, that a new version of data has been received, independent of any request for the data. This may be used for new data that has never been previously requested or stored in a cache. This is only one example of how a

second more recent version of data may be detected independent of any request for that data and the claimed invention is not limited to this example or any particular approach.

In view of the foregoing, it is respectfully submitted that Claims 1-70 and 77-90 are not indefinite for failing to particularly point out and distinctly claim the subject matter, which Applicant regards as the invention. Accordingly, reconsideration and withdrawal of the rejection of Claims 1-70 and 77-90 under 35 U.S.C. § 112, second paragraph, is respectfully requested.

REJECTION OF CLAIMS 1, 4, 5, 7, 8, 10, 13, 17, 19, 20, 22, 69 AND 70 UNDER 35 U.S.C. § 102(e)

Claims 1, 4, 5, 7, 8, 10, 13, 17, 19, 20, 22, 69 and 70 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Keesey et al.*, U.S. Patent No. 6,622,167 (hereinafter "*Keesey*"). It is respectfully submitted that Claims 1, 4, 5, 7, 8, 10, 13, 17, 19, 20, 22, 69 and 70 are patentable over *Keesey* for at least the reasons provided hereinafter.

CLAIM 1

Claim 1 is directed to a method for managing data stored in a cache that recites:

"providing a first version of data in response to receiving a first request for data;
detecting, independent of any request for the data, that a second more recent version of the data is available;
in response to detecting, independent of any request for the data, that the second more recent version of the data is available,
requesting the second more recent version of the data be supplied to the cache, and
storing in the cache the second more recent version of the data;
receiving a second request for the data; and
in response to receiving the second request for the data,
retrieving the second more recent version of the data from the cache, and
providing the second more recent version of the data."

It is respectfully submitted that Claim 1 is patentable over *Keesey* because Claim 1 includes one or more limitations that are not taught or suggested by *Keesey*. For example, it is

respectfully submitted that *Keesey* does not teach or suggest the Claim 1 limitations "detecting, independent of any request for the data, that a second more recent version of the data is available" and "in response to detecting, independent of any request for the data, that the second more recent version of the data is available, requesting the second more recent version of the data be supplied to the cache, and storing in the cache the second more recent version of the data."

In both the passive and active modes of operation, a Document Shadowing Server (DSS) determines whether a new version of a document is available only after the DSS requests and receives a document from an upstream DSS or the Internet. The DSS may then determine whether the received document is a revised version of an existing document stored in the local cache of the DSS. Thus, in *Keesey*, for a DSS to determine whether a new version of a document is available, the DSS must first make a request for the document from an upstream DSS or the Internet.

The Office Action refers to the text at Col. 7, lines 25-30 of *Keesey* for teaching the aforementioned limitations of Claim 1. This text at this portion of *Keesey* states "[a]lternatively, new versions could be pushed downstream to any DSS that has previously requested the document independently of the user request and inquiry process of FIGS 4 through 6." To the extent that this portion of *Keesey* teaches or suggests the Claim 1 limitation "detecting, *independent of any request for the data*, that a second more recent version of the data is available," it is only in the context of detecting that a more recent version of data is available independent of the user request and inquiry process of FIGS 4 through 6 of *Keesey*. This text clearly states that new versions can be pushed downstream to any DSS "*that has previously requested the document*." Thus, the detection that a new version of data is available is not made

"independent of any request for the data" as recited in Claim 1, since this portion of *Keesey* describes that new versions of data are pushed to any DSS that has previously requested the document. The pushing of new data to a DSS is dependent upon the DSS having previously requested the document. In this portion of *Keesey*, the word "independently" modifies "of the user request and inquiry process of FIGS 4 through 6" and not "that has previously requested the document." It is therefore respectfully submitted that the Claim 1 limitation "detecting, independent of any request for the data, that a second more recent version of the data is available" is not taught or suggested by *Keesey*.

Furthermore, in the situation where a DSS pushes a more recent version of a document downstream to any DSS that has previously requested the document, there is no current request that the more recent version of the document be supplied to a downstream DSS. Rather, only a prior request is made. In this situation, the Claim 1 limitation of "in response to detecting, independent of any request for the data, that the second more recent version of the data is available, *requesting the second more recent version of the data be supplied to the cache*, and storing in the cache the second more recent version of the data" is not taught or suggested by *Keesey*, since *Keesey* does not teach or suggest that a current request is made to supply the more recent version of the document to a downstream DSS. An upstream DSS simply pushes a new version of a document to a downstream DSS that had previously requested the document. It is therefore respectfully submitted that the Claim 1 limitation "in response to detecting, independent of any request for the data, that the second more recent version of the data is available, *requesting the second more recent version of the data be supplied to the cache*, and storing in the cache the second more recent version of the data" is also not taught or suggested by *Keesey*.

In view of the foregoing, it is respectfully submitted that Claim 1 recites one or more limitations that are not taught or suggested by *Keesey* and that Claim 1 is therefore patentable over *Keesey*.

CLAIMS 4, 5, 7, 8 AND 10

Claims 4, 5, 7, 8 and 10 all depend from Claim 1 and include all of the limitations of Claim 1. It is therefore respectfully submitted that Claims 4, 5, 7, 8 and 10 are patentable over *Keesey* for at least the reasons set forth herein with respect to Claim 1. Furthermore, it is respectfully submitted that Claims 4, 5, 7, 8 and 10 recite additional limitations that independently render them patentable over *Keesey*.

CLAIMS 13, 17, 19, 20 AND 22

Claims 13, 17, 19, 20 and 22 recite limitations similar to Claims 1, 5, 7, 8 and 10, except in the context of computer-readable media. It is therefore respectfully submitted that Claims 13, 17, 19, 20 and 22 are patentable over *Keesey* for at least the reasons set forth herein with respect to Claims 1, 5, 7, 8 and 10.

CLAIMS 69 AND 70

Claims 69 and 70 recite limitations similar to Claim 1, except in the context of detecting whether new data that is not stored in the cache is available. It is therefore respectfully submitted that Claims 69 and 70 are patentable over *Keesey* for at least the reasons set forth herein with respect to Claim 1.

In view of the foregoing, it is respectfully submitted that Claims 1, 4, 5, 7, 8, 10, 13, 17, 19, 20, 22, 69 and 70 are patentable over *Keesey*.

REJECTION OF CLAIMS 2, 3, 6, 9, 11, 12, 14, 15, 18, 21, 23-69 AND 77-90 UNDER 35 U.S.C. § 103(a)

Claims 2, 3, 6, 9, 11, 12, 14, 15, 18, 21, 23-69 and 77-90 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Keesey*. It is respectfully submitted that Claims 2, 3, 6, 9, 11, 12, 14, 15, 18, 21, 23-69 and 77-90 are patentable over *Keesey* for at least the reasons provided hereinafter.

CLAIMS 2, 3, 6, 9, 11 AND 12

Claims 2, 3, 6, 9, 11 and 12 all depend from Claim 1 and include all of the limitations of Claim 1. It is therefore respectfully submitted that Claims 2, 3, 6, 9, 11 and 12 are patentable over *Keesey* for at least the reasons set forth herein with respect to Claim 1. Furthermore, it is respectfully submitted that Claims 2, 3, 6, 9, 11 and 12 recite additional limitations that independently render them patentable over *Keesey*.

CLAIMS 14, 15, 18, 21, 23 AND 24

Claims 14, 15, 18, 21, 23 and 24 recite limitations similar to Claims 2, 3, 6, 9, 11 and 12, except in the context of computer-readable media. It is therefore respectfully submitted that Claims 14, 15, 18, 21, 23 and 24 are patentable over *Keesey* for at least the reasons set forth herein with respect to Claims 2, 3, 6, 9, 11 and 12.

CLAIMS 25-36

Claim 25 recites "detecting, independent of any request for the data, that a second more recent version of the data is available" and "in response to detecting, independent of any request for the data, that the second more recent version of the data is available, ... and requesting the second more recent version of the data be supplied to the cache." These limitations are recited in

Claim 1 and, as set forth herein with respect to Claim 1, it is respectfully submitted that these limitations are not taught or suggested by *Keesey*. It is therefore respectfully submitted that Claim 25 is patentable over *Keesey* for at least the reasons set forth herein with respect to Claim 1. Claims 26-36 depend from Claim 25 and include all of the limitations of Claim 25. It is therefore respectfully submitted that Claims 26-36 are also patentable over *Keesey*.

CLAIMS 37-48

Claims 37-48 recite limitations similar to Claims 25-36, except in the context of computer-readable media. It is therefore respectfully submitted that Claims 37-48 are patentable over *Keesey* for at least the reasons set forth herein with respect to Claims 25-36.

CLAIMS 49-58

Claim 49 recites limitations similar to Claim 1. For example, Claim 49 recites "determining, for each of the one or more data items, independent of any request for any of the one or more data items, whether a newer version of the data item is available" and "for each of the one or more data items where a determination is made, independent of any request for any of the one or more data items, that a newer version of the data item is available, ... requesting the newer version of the data item be supplied to the cache." It is therefore respectfully submitted that Claim 49 is patentable over *Keesey* for at least the reasons set forth herein with respect to Claim 1. Claims 50-58 all depend from Claim 49 and include all of the limitations of Claim 49. It is therefore respectfully submitted that Claims 50-58 are also patentable over *Keesey*.

CLAIMS 59-68

Claims 59-68 recite limitations similar to Claims 49-58, except in the context of computer-readable media. It is therefore respectfully submitted that Claims 59-68 are patentable over *Keesey* for at least the reasons set forth herein with respect to Claims 49-58.

CLAIMS 69 AND 70

Claim 69 recite limitations similar to Claim 1. For example, Claim 69 recites "detecting, independent of any request for data, that new data that is not stored in the cache is available" and "in response to detecting, independent of any request for data, that the new data is available, requesting that the new data be supplied to the cache." It is therefore respectfully submitted that Claim 69 is patentable over *Keesey* for at least the reasons set forth herein with respect to Claim 1. Claim 70 recites limitations similar to Claim 69, except in the context of a computer-readable medium. It is therefore respectfully submitted that Claim 70 is also patentable over *Keesey*.

CLAIMS 77 AND 78

Claim 77 recites limitations similar to Claim 1. For example, Claim 77 recites "detecting, independent of any request for the content, that a second more recent version of the content is available on the origin server" and "in response to detecting, independent of any request for the content, that the second more recent version of the content is available on the origin server,... requesting and receiving the second more recent version of the content from the origin server." It is therefore respectfully submitted that Claim 77 is patentable over *Keesey* for at least the reasons set forth herein with respect to Claim 1. Claim 78 recites limitations similar to Claim 77, except in the context of a computer-readable medium. It is therefore respectfully submitted that Claim 78 is also patentable over *Keesey*.

CLAIMS 79-89

Claim 79 recites limitations similar to Claim 1. For example, Claim 79 recites "detect, independent of any request for content, that a second more recent version of the content is available" and "in response to detecting, independent of any request for the content, that the second more recent version of the content is available on the origin server, request the second more recent version of the content be supplied to the cache." It is therefore respectfully submitted that Claim 79 is patentable over *Keesey* for at least the reasons set forth herein with respect to Claim 1. Claims 80-89 all depend from Claim 79 and include all of the limitations of Claim 79. It is therefore respectfully submitted that Claims 80-89 are also patentable over *Keesey*.

CLAIM 90

Claim 90 recites limitations similar to Claim 1. For example, Claim 90 recites "detect, independent of any requests for data stored in the cache, that a second more recent version of the data is available" and "in response to detecting, independent of any requests for data stored in the cache, that the second more recent version of the data is available, ..., and requesting the second more recent version of the data be supplied to the cache." It is therefore respectfully submitted that Claim 90 is patentable over *Keesey* for at least the reasons set forth herein with respect to Claim 1.

CONCLUSION

It is respectfully submitted that all of the pending claims are in condition for allowance and the issuance of a notice of allowance is respectfully requested. If there are any charges, please charge them to Deposit Account No. 50-1302.

The Examiner is invited to contact the undersigned by telephone if the Examiner believes that such contact would be helpful in furthering the prosecution of this application.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: **Mail Stop Amendment**, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450

on July 14, 2005 by Angelica Maloney

Angelica Maloney